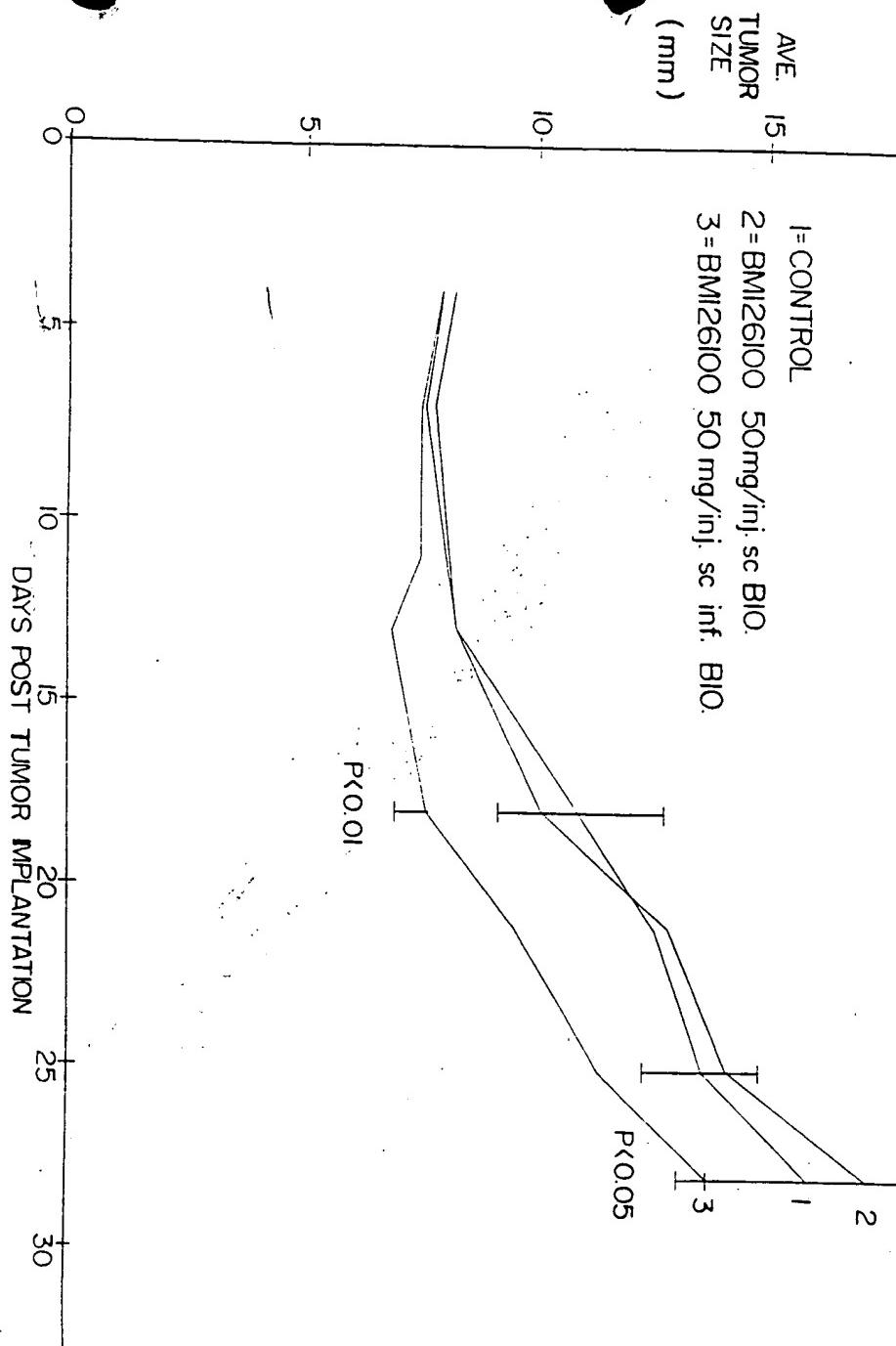


20T

FIG. 1



# FIG. 2

## Litorin

A1 A2 A3 A4 A5 A6 A7 A8 A9  
pGlu-Gln-Trp-Ala-Val-Gly-His-Phe-Met

SEQ ID No. 12

w

## (Ser<sup>1</sup>) Neuromedin C

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9  
Gly-Ser-His-Trp-Ala-Val-Gly-His-Leu-Met

w

## Bombesin (last 10 amino acids)

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9  
Gly-Asn-Gln-Trp-Ala-Val-Gly-His-Leu-Met

w

## human GRP (last 10 amino acids)

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9  
Gly-Asn-His-Trp-Ala-Val-Gly-His-Leu-Met

w

## FIG. 3a

### VIP FAMILY OF PEPTIDES

hpVIP      His-Ser-Asp-Ala-Val-Phe-Thr-Asp----Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Met-Ala-Val-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-NH<sub>2</sub>

p PHI      His-Ala-Asp-Gly-Val-Phe-Thr-Ser----Asp-Phe-Ser-Arg-Leu-Gly-Gln-Leu-Ser-Ala-Lys-Lys-Tyr-Leu-Glu-Ser-Ile-NH<sub>2</sub>

pb Secretin      His-Ser-Asp-Gly-Thr-Phe-Thr-Ser----Glu-Leu-Ser-Arg-Asp-Ser-Ala-Arg-Gly-Gln-Gly-Leu-Glu-Asn-NH<sub>2</sub>

h GRF      Tyr-Ala-Asp-Val-Ile-Phe-Thr-Asn----Ser-Tyr-Arg-Lys-Val-Leu-Gly-Gln-Leu-Ser-Ala-Arg-Lys-Leu-Gln-Asp-Ile-Net-Ser-

ph glucagon      His-Ser-Gln-Gly-Thr-Phe-Thr-Ser----Asp-Tyr-Ser-Lys-Tyr-Leu-Asp-Ser-Arg-Arg-Ala-Gln-Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr

p GIP      Tyr-Ala-Gly-Gly-Thr-Phe-Ile-Ser----Asp-Tyr-Ser-Ile-Ala-Met-Asp-Lys-Ile-Ara-Gln-Gln-Asp-Phe-Val-Asn-Trp-Leu----

o CRF      Ser-Glu-Pro-Pro-Ile-Ser-Leu-Asp-Leu-Ile-Phe-His-Leu-Leu-Arg-Glu-Yal-Leu-Glu-Met-Thr-Lys-Ala-Asp-Gln-Leu-----Ala-

S & u w a n i e ( <sup>alpha,beta</sup> )  
S agine pGlu-Gly-Pro-Pro-Ile-Ser-Ile-Asp-Leu-Ser-Arg-Lys-Met-Ile-Glu-Ile-Glu-Lys-Gln-Glu-Lys-Glu-----Lys-

Helodermin      His-Ser-Asp-Ala-Ile-Phe-Thr-Gln----Gln-Tyr-Ser-Lys-Leu-Leu-Ala-Lys-Leu-Ala-Leu-Gln-Lys-Tyr-Leu-Ala-Ser-

Urotensin I      Asn-Asp-Pro-Pro-Ile-Ser-Leu-Asp-Ile-Glu-Asn-Met-Ile-Glu-Met-Ala-Arg-Ile-Glu-Asn-Glu-----Arg-

Arg-Gln-Gln-Gly-Glu-Ser-Asn-Gln-Glu-Arg-Gly-Ala-Arg-Ala-Arg-Leu-NH<sub>2</sub>

## FIG. 3b

### SEQUENCES CONTINUED:

h GRF	Arg-Gln-Gln-Gly-Glu-Ser-Asn-Gln-Glu-Arg-Gly-Ala-Arg-Ala-Arg-Leu-NH <sub>2</sub>
pGIP	Ala-Gln-Lys-Gly-Lys-Ser-Asp-Trp-Lys-His-Asn-Ile-Thr-Gln
o CRF	Gln-Gln-Ala-His-Ser-Asn-Arg-Lys-Leu-Leu-Asp-Ile-Ala-NH <sub>2</sub>
Sauvagine	Gln-Gln-Ala-Asn-Asn-Arg-Leu-Leu-Leu-Asp-Thr-Ile-NH <sub>2</sub>
Helodermin	Ile-Leu-Gly-Ser-Arg-Thr-Ser-Pro-Pro-Pro-NH <sub>2</sub>
Urotensin I	Glu-Gln-Ala-Gly-Leu-Asn-Arg-Lys-Tyr-Leu-Asp-Glu-Val-NH <sub>2</sub>

GRF(1-29)NH<sub>2</sub>  
Tyr<sup>1</sup>ψ[CH<sub>2</sub>NH]Ala<sup>2</sup>  
Ala<sup>2</sup>ψ[CH<sub>2</sub>NH]Asp<sup>3</sup>  
Asp<sup>3</sup>ψ[CH<sub>2</sub>NH]Ala<sup>4</sup>  
Ala<sup>4</sup>ψ[CH<sub>2</sub>NH]Ile<sup>5</sup>  
Ile<sup>5</sup>ψ[CH<sub>2</sub>NH]Phe<sup>6</sup>

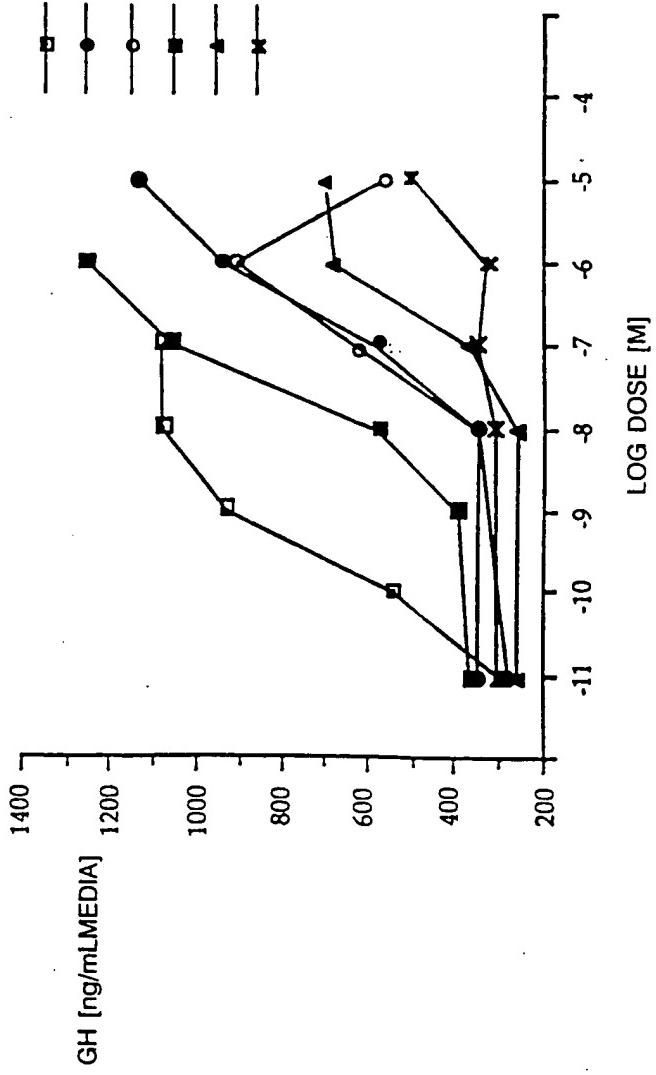


FIG. 4

GRF(1-29)NH<sub>2</sub>  
Phe<sup>6</sup>ψ(CH<sub>2</sub>NH)Thr<sup>7</sup>  
Thr<sup>7</sup>ψ(CH<sub>2</sub>NH)Asn<sup>8</sup>  
Ser<sup>9</sup>ψ(CH<sub>2</sub>NH)Tyr<sup>10</sup>  
Tyr<sup>10</sup>ψ(CH<sub>2</sub>NH)Arg<sup>11</sup>

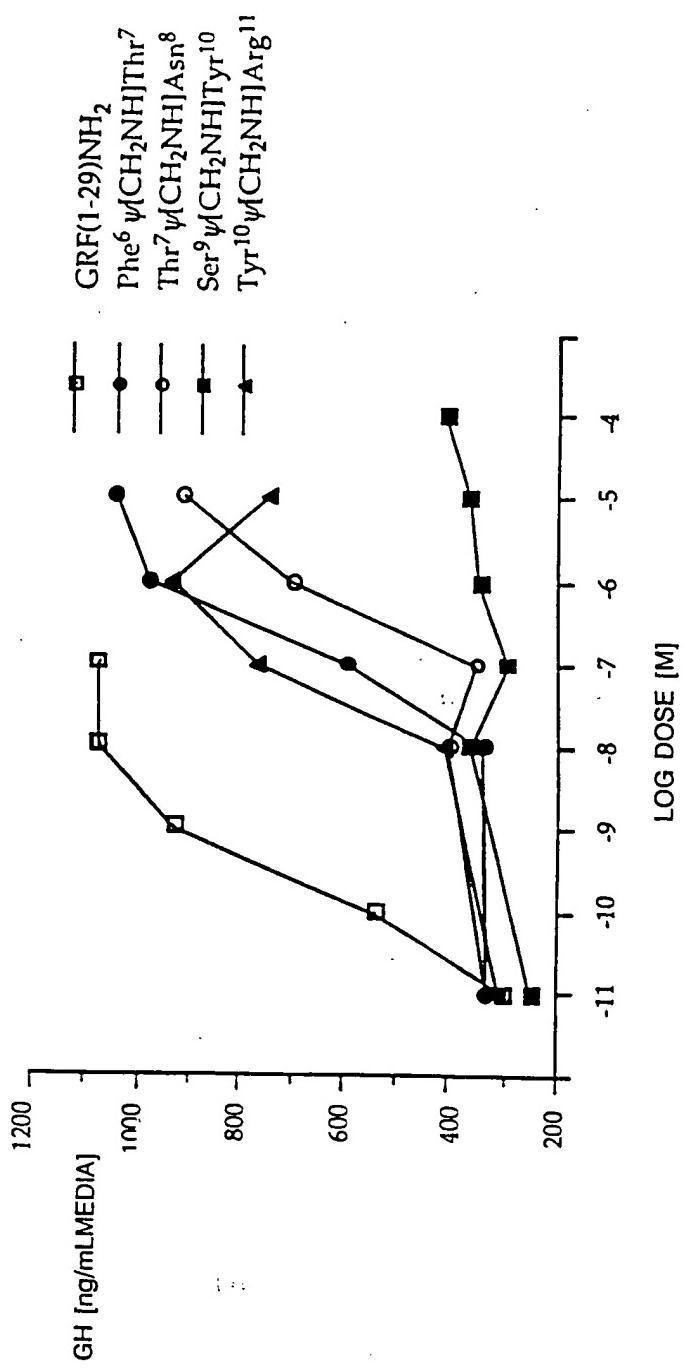


FIG. 5

GRF-Stimulated      0.01      0.1      1      10      Basal

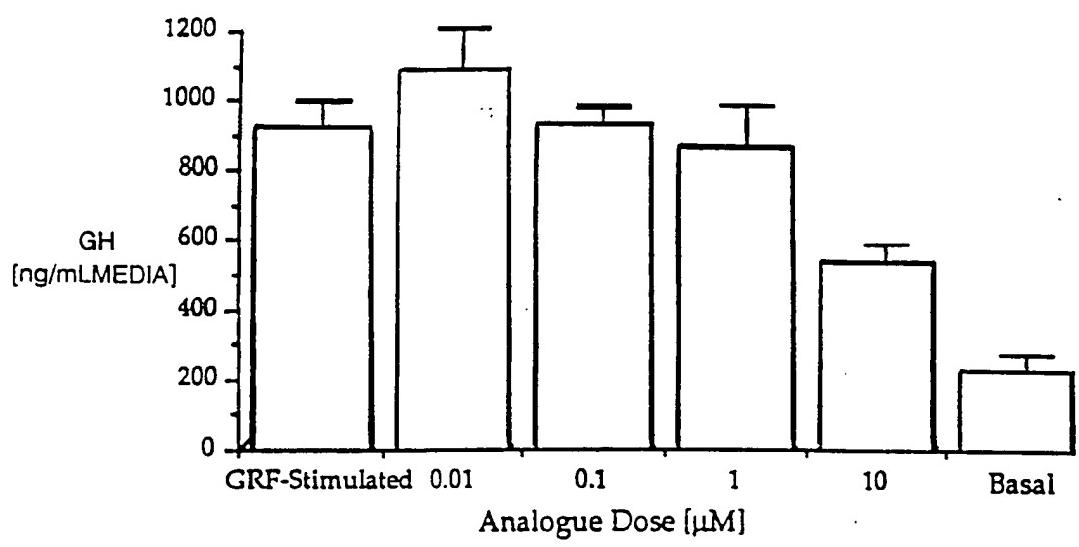


FIG. 6